

## ***BBC's Doctors: Denying Electromagnetic Hypersensitivity (EHS)***

Shamelessly, the BBC has done it again, producing and broadcasting yet more propaganda in favour of the mobile telecommunications industry and 5G while dismissing and discrediting legitimate, evidenced-based concerns about the health impacts of wireless technologies. This time all conveyed via its long-running daytime medical soap opera, *Doctors*, shown on BBC One.

A recent episode (series 24, episode 180) with the title “The Power of Suggestion” (29<sup>th</sup> February 2024, still available on BBCiplayer, but not for much longer<sup>1</sup>) tells the story of a maths teacher, Marcus, who is convinced that his health is being adversely affected by a nearby 5G mast. Described by his doctor, Al Haskey, as “an intelligent man, a rational man”, he’s taken refuge in the cellar of his house while Jan, his unsympathetic wife who’s reaching the end of her tether, has gone to see Dr Haskey and is threatening to divorce her husband unless he can be made to see sense.

“The Doctective” is the name of Dr Haskey’s new podcast, which he says is “all about digging deep into weird and wonderful medical conundrums”. He describes Marcus’s case as a “humdinger”, a term imparting something of the gleefully triumphant tenor of the episode. “The Power of Suggestion” invites the viewer on an investigative medical journey, with the GP sleuth heroically seeking to solve the mystery of Marcus’s symptoms: “If 5G can actually damage you, then, as a doctor, then I need to know about it”.

The plot can be summarised as follows: as requested by Jan, Dr Haskey visits Marcus in his underground bunker, its walls draped with silvery survival blankets in order to shield him from the radiation he believes is harming him. Dr Haskey decides to run a battery of tests on Marcus, all of which produce normal results suggesting there is nothing physically wrong with him. After having Marcus consult a psychiatrist, who declares him to be cogent and rational, Dr Haskey prescribes further tests and finally diagnoses him as suffering from lupus. In the course of his investigations the doctor also comes across Ginny, Marcus’s health guru, about whom more later.

Several points need to be made about the representation of Marcus’s illness in this episode.

First of all, many readers may recognise Marcus’s symptoms, which include irritable bowel syndrome, chronic fatigue, rashes, swelling, insomnia, joint pain, muscle pains, headaches, nausea and dizziness, as typical of the condition electromagnetic hypersensitivity (EHS) or ‘microwave syndrome’—although neither of these terms is mentioned in the episode. A

condition affecting multiple bodily systems, EHS manifests as a physical intolerance to man-made electromagnetic fields (EMFs) such as those used by wireless networks and gadgets, including 5G. For affected people, exposure to EMFs causes a host of distressing, debilitating and disabling symptoms that result from bioelectromagnetic physiological injury. In July 2024, the International Commission on the Biological Effects of EMFs (ICBE-EMF) declared EHS to be “a humanitarian crisis that requires an urgent response”, noting that “the unmitigated, neglected widespread disruption of lives is inhumane and deeply troubling.”<sup>ii</sup>

Given the nature of his symptoms and the proximity of the 5G mast, it's entirely plausible that Marcus is suffering from EHS. However, the clear propagandistic purpose of this episode is to portray the patient as entirely deluded—as well as maliciously misled—about the possible cause of his symptoms and to convey to viewers the message that there can be no adverse impacts on health from 5G. (I've explored in a previous article how the BBC is subject to a grave, unacknowledged conflict of interest as far as 5G deployment and its health impacts are concerned.<sup>iii</sup>)

The crux of the BBC's message lies in the following excerpt from Dr Haskey's summing-up of the “humdinger” of a case while narrating his podcast episode: “Marcus believed that 5G and EMF radiation, were making him ill, so my first port of call was to try and find a way to believe him. I contacted a very highly regarded scientist, an expert in 5G technology. He explained to me that 5G works via a radiofrequency, also known as electromagnetic EMF, or EMF radiation. I get it, it sounds really, really scary. But our expert also told me that the kind of energy we are talking about has far, far less radiation than you find even in visible light. So if you are frightened of 5G, listeners, you should be absolutely blooming terrified of a lightbulb!”

The obvious major flaw in Dr Haskey's sleuthing, however, is that he contacts an “expert in 5G technology” rather than a medically qualified expert in the effects of EMFs on biological systems. The former is likely to be an electronics engineer or a physicist with no special research expertise in the effects of RF-EMFs on human health. This is indeed the case of real-life media scientist Dr David Robert Grimes, a physicist who has taken it upon himself many times to defend the interests of the wireless industry by deploying very similar arguments to the “expert” referred to by the fictional Dr Haskey. In 2020 Dr Grimes even participated in a 2020 video advertorial for Vodafone, once again dismissing any adverse health effects from 5G.<sup>iv</sup>

Over many years Dr Grimes has rehearsed *ad nauseum* the argument—the only one in his arsenal, apparently—that the non-ionising radiofrequency EMFs used by wireless technologies do not have sufficient energy to break chemical bonds and thereby potentially cause cancer;

only ionising radiation does. For example, in a BBC *File on Four* radio documentary from 2020, “The 5G Con”, Grimes opined: “If you’re really scared of 5G, light bulbs should terrify you. But, in fact, neither should. What really matters when it comes to electromagnetic radiation is its ability to what’s called ionise, and in doing so it can cause DNA damage and eventually lead to things like cancer. And most certainly, radio frequency light does not have enough energy to do this.”

In a recent interview, one of the true foremost specialists in the world on the biological effects of EMFs, Dr Dimitris J. Panagopoulos, was asked to address such common misconceptions as “non-ionizing radiation cannot possibly cause DNA damage”. He responded: “Such erroneous statements are made because some physicists and engineers confuse living tissue with inanimate matter. Living tissue does not respond to EMFs and other stressors like inanimate matter. It is far more complicated than that. A relevant statement would be “non-ionizing radiation cannot *directly* cause DNA damage”. But it can do that *indirectly* in living cells by causing VGIC [Voltage-Gated Ion Channel] dysfunction, which alters ionic concentrations in the cells - triggering the production of ROS [Reactive Oxygen Species]”.

This point is echoed by the ICBE-EMF in a 2022 paper that comprehensively takes apart fourteen erroneous assumptions underlying current non-protective RF-EMF exposure guidelines, including that made by both Dr Grimes and Dr Haskey’s expert concerning non-ionising radiation. The ICBE-EMF notes that the man-made frequencies might be of ‘low intensity’ but that they nevertheless cause harm to multiple bodily systems by more complex, indirect mechanisms: “Increased production of ROS and depletion of antioxidant capacity in living cells exposed to low intensity RF radiation can result in oxidative DNA damage. Induction of oxidative stress, which is a key characteristic of many human carcinogens, including UVR and asbestos, can also lead to genotoxicity and carcinogenicity of non-ionizing RF radiation without causing direct DNA damage.”<sup>v</sup>

Panagopoulos also points out that “Prolonged overproduction of ROS in the cells is a condition of irritation/inflammation called oxidative stress (OS) which may easily result in various pathologies. A relatively mild such ‘pathology’ is what is called Electrohypersensitivity (EHS) at its first stages. Actually, in my view, this is not a pathology but a healthy reaction to an unnatural exposure which is the totally polarized and coherent (man-made) EMFs. If the person does not minimize the exposure at the early stages of EHS occurrence, the initial healthy reaction may become a serious pathology with unbearable symptoms.”<sup>vi</sup> In other words, something very akin to what Marcus is experiencing.

Given Dr Grimes's own use of the lightbulb analogy cited above, it's plausible that the writer of this episode of *Doctors* contacted the former while scripting it. It's also probably safe to assume that he watched "The 5G Con". One thing's for sure: he can't have taken the time to consult anyone from the ICBE-EMF or from any of the other expert groups from around the world such as the Physicians' Health Initiative for Radiation and Environment (PHIRE), the Oceania Radiofrequency Scientific Advisory Association (ORSAA), the Bioinitiative Working Group - or, for that matter, the UK patient charity Electrosensitivity-UK.

There is also a cunning tactical sleight of hand at play here too, possibly in an attempt to deflect potential criticism from EHS patient groups and associations like ES-UK: the plot does not conclude by confirming that Marcus is deluded, his symptoms entirely psychosomatic and resulting from the nocebo response. This, after all, is a tactic commonly deployed to discredit and dismiss those who suffer from EHS: the symptoms may be real but they most definitely aren't caused by EMFs. This hypothesis is rejected by the 3500+ expert scientists and medics who signed a 2020 Consensus Statement: "Some have suggested a 'nocebo response' (symptoms induced by fear of exposure) as the mechanism behind the reaction. This explanation does not withstand scientific scrutiny. EHS is proven to be a physical response under blinded conditions, biomarkers are being identified, and mechanisms that may explain the reaction are evolving."<sup>vii</sup> While the fictional Dr Haskey refers to the nocebo response at one point, this episode of *Doctors* concludes that Marcus really is ill but that his symptoms are caused by lupus—and absolutely, definitely not by 5G. In fact, it's less an exploration of lupus than a bid to discredit the ideas that 5G/wireless radiation is harmful and that EHS (albeit unnamed) is a real physiological condition.

The problem here is that lupus, according to Lupus UK, is a very uncommon condition, with a prevalence of only about 0.1% of the population.<sup>viii</sup> EHS, by contrast, is quite widespread and has been estimated by the French health authority, ANSES (which has been far more proactive on the issue than any of the UK health authorities) to affect approximately 5% of the population.<sup>ix</sup> The UK's Physicians' Health Initiative for Radiation and Environment (PHIRE) puts prevalence as between 5-10%, with 1.5% being severely affected.<sup>x</sup> So there are likely to be at least 50 times more sufferers of EHS than lupus in the UK, or 3.45 million sufferers compared to 69,000 lupus patients.

Given the proximity of a 5G mast to Marcus's home, it would have been far more probable and realistic for him to have been suffering from EHS rather than lupus. Indeed, a series of case studies from Sweden have documented how people have developed symptoms of EHS (or 'microwave syndrome') after the installation of 5G base stations in the vicinity of their homes. These case histories, described by the authors as "classical examples of provocation studies"

were co-authored by Professor Lennart Hardell, an oncologist and retired professor at Örebro University Hospital, who is an expert in environmental risk factors for cancer and in the health effects of RF-EMFs.

The findings of the case studies were collated in a recent paper, “Summary of seven Swedish case reports on the microwave syndrome associated with 5G radiofrequency radiation” (2024), where the authors report: “In total 41 different health issues were assessed for each person graded 0 (no complaint) to 10 (worst symptoms). Most prevalent and severe were sleeping difficultly (insomnia, waking night time, early wake-up), headache, fatigue, irritability, concentration problems, loss of immediate memory, emotional distress, depression tendency, anxiety/panic, dysesthesia (unusual touched based sensations), burning and lancinating skin, cardiovascular symptoms (transitory high or irregular pulse), dyspnea, and pain in muscles and joints. Balance disorder and tinnitus were less prevalent. All these symptoms are included in the microwave syndrome. In most cases the symptoms declined and disappeared within a short time period after the studied persons had moved to a place with no 5G.”<sup>xi</sup>

EHS, however, is a taboo subject for the BBC and many other media outlets because it disrupts what have become deeply ingrained societal norms and also threatens the ambitions—along with the bottom line—of the wireless industry, a close partner of the news/entertainment industry and a major source of advertising revenue. The existence and reality of EHS must therefore continue to be denied and a soap such as *Doctors* serves as a perfect vehicle for disseminating such denial to the public.<sup>xii</sup> So on the one hand, Marcus’s symptoms could be the sign of psychological problems (and this is indeed the standard ploy in EHS-denial) or, as in the novel deflective twist adopted in this episode of *Doctors*, have some other explanation such as the auto-immune condition lupus. By no means must the symptoms have an environmental cause, namely the pollution generated by an increasingly widespread and widely used technology.

The writer also resorts to the discredit through association technique: part of the point of this episode is to disparage as gullible, misguided conspiracy theorists those who are concerned about 5G and/or experience symptoms from 5G and to associate them with dubious characters peddling expensive new-age bunkum such as Ginny, Marcus’s health guru. Hence the caricatured portrayal of Ginny as a manipulative charlatan who flogs the gullible Marcus a cheap vitamin pill dressed up as a remedy (“Hippocratum”) against EMFs for £500 a month, along with an array of other gimmicks said to protect him from EM radiation.

Dr Haskey also claims, “I can show you thousands of scientific studies that show no casual [sic] connection between EMF and any form of illness”, to which Ginny replies: “And I can show you

studies that prove that there is.” Dr Haskey retorts that people like Ginny cherry-pick studies as proof of their belief: “It is only when you look at all the studies together collectively that a conclusive pattern emerges, and Marcus, that pattern tells me that 5G is not making you ill.” Dr Haskey’s contention is, however, wrong on at least two points.

Firstly, there is actually a dearth of pre-deployment studies to research the potential health impacts of 5G, a point raised by the ICBE-EMF in their 2022 paper: “There are no adequate studies on health effects from short-term or long-term exposures to 5G radiation in animal models or in humans.”<sup>xiii</sup> Secondly, it is curiously the case in the field of EMF research that any studies showing no effects are used to discount studies that show effects. In other words, cherry-picking is rife amongst scientists who favour the erroneous ‘non-ionising = no harm’ hypothesis, amongst other flawed assumptions. In the quest for scientific truth, even a single methodologically sound study that demonstrates an unexpected effect should elicit further research, not its shutting down and the summary dismissal of the study in question. If such a study is reliably replicated and produces similar results it can ultimately contribute to throwing a whole scientific paradigm into question in accordance with Karl Popper’s falsification principle. In sum, it goes against basic scientific principles to state, like Grimes, that something is definitively the case when there is good evidence that it is not so: indeed, the hypothesis that non-ionising RF-EMFs cannot cause biological effects and therefore harm has already been falsified countless times.

The fact also remains that, merely from a statistical point of view, people experiencing symptoms like Marcus’s will be more likely to be suffering from EHS than conditions such as lupus, ME (prevalence of 0.2 - 0.4% of the population<sup>xiv</sup>) or even fibromyalgia (prevalence of 4% of the population<sup>xv</sup>).

Indeed there are myriad parallels between the way ME and EHS have been misunderstood and misrepresented—both in the media and in wider society—and, most significantly, in how they have been met with long-standing disbelief and denial in medical circles. The publication of the Coroner’s report following the inquest into the death of 27-year-old Maeve Boothby O’Neill from severe and inappropriately treated ME recently highlighted the neglect of this terrible condition and the fact that sufferers have been, as one ME expert puts it, “ignored, blamed and left to die”.<sup>xvi</sup> As George Monbiot points out in his excoriating column on Maeve’s case, the inquest heard that she faced a “culture of disbelief” in the health service, while a specialist consultant in ME had warned that many medical personnel “still hold an outdated understanding that ME/CFS has psychological causes”.<sup>xvii</sup> Monbiot has called this “the greatest medical scandal of the 21<sup>st</sup> century”.<sup>xviii</sup> Alas, the biopsychosocial model wrongly applied to ME is also being wrongly applied to EHS. Given the number of people affected there can be no doubt

that EHS (and the wider health impacts of wireless pollution) will in due course become one of the greatest medical scandals of this century.

If the BBC had any commitment to contributing to the protection of public health, it would have produced a sensitive episode of *Doctors* exploring the difficulties medics have—with no training or CPD in the diagnosis and treatment of EHS—in identifying the condition. (Developing expertise in diagnosing and treating EHS would, by the way, save the NHS a fortune in wasted medication and inappropriate diagnostic tests). And of course, the BBC could also be making factual documentaries in the same vein.

Instead of that, we have unashamed propaganda promoting and protecting the interests of the wireless industry by deflecting attention from the deleterious health impacts of 5G and portraying those concerned about it as exploitative cranks or as vulnerable, delusional and easily misled. Dr Haskey concludes his case by telling Marcus's wife, "It's important to try to help people who believe in conspiracy theories." The message the episode seeks to convey is thus made crystal clear: belief that 5G—and never mind its impacts on any other forms of life on Earth—causes health problems is a conspiracy theory that must be stamped out. Not only is this message patently untrue; it is also inhumane, deeply troubling and harmful to the unseen millions of people in the UK with EHS whose health and lives are being quietly destroyed by the relentless, ruthless proliferation of wireless pollution.

Annelie Fitzgerald,  
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Note: I contacted the writer of the episode with my concerns but he declined to respond to my comments.

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<sup>i</sup> <https://www.bbc.co.uk/iplayer/episode/m001wt6h/doctors-series-24-180-the-power-of-suggestion>

<sup>ii</sup> <https://icbe-emf.org/activities/electrohypersensitivity/>

<sup>iii</sup> <https://truepublica.org.uk/united-kingdom/5g-bias-and-conflict-of-interest-at-the-bbc/>

<sup>iv</sup> <https://www.vodafone.co.uk/newscentre/features/5g-and-health-everything-you-need-to-know/> Grimes has been heavily criticised for his biased opinion pieces in *The Journal of Scientific Practice and Integrity*: <https://www.jospi.org/post/1304-experts-blast-david-robert-grimes-for-his-failure-to-understand-science-and-love-of-self-citation>

<sup>v</sup> Scientific evidence invalidates health assumptions underlying the FCC and ICNIRP exposure limit determinations for radiofrequency radiation: implications for 5G. International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF), *Environmental Health* (2022) 21:92: <https://doi.org/10.1186/s12940-022-00900-9>

<sup>vi</sup> "EMF Dangers: 'The Evidence Today Is Overwhelming And Indisputable'" – An Interview with EMF-biophysicist Dr. Dimitris J. Panagopoulos": <https://theemfguy.com/emf-dangers-panagopoulos/> Panagopoulos is the editor of

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*Electromagnetic Fields of Wireless Communications: Biological and Health Effects*, Routledge, 2024:  
<https://www.routledge.com/Electromagnetic-Fields-of-Wireless-Communications-Biological-and-Health/Panagopoulos/p/book/9781032061757>

- vii <https://phiremedical.org/wp-content/uploads/2020/11/2020-Non-Ionising-Radiation-Consensus-Statement.pdf>
- viii <https://patient.info/doctor/systemic-lupus-erythematosus-pro>
- ix Hypersensibilité électromagnétique ou intolérance environnementale idiopathique attribuée aux champs électromagnétiques: <https://www.anses.fr/fr/system/files/AP2011SA0150Ra.pdf>
- x <https://phiremedical.org/wp-content/uploads/2023/03/PHIRE-EHS-Fast-Facts-Leaflet-Final.pdf>
- xi Hardell L, Nilsson M. Summary of seven Swedish case reports on the microwave syndrome associated with 5G radiofrequency radiation. *Rev Environ Health*. 2024 Jun 19. doi: 10.1515/reveh-2024-0017.
- xii Interestingly Anna Lyndsey, a lupus sufferer and author of the memoir *Girl in the Dark* (2015), recently published a novel about a physicist who develops EHS, *Impossible People* (2023). *Girl in the Dark* was reviewed very favourably in the *Guardian*; *Impossible People* was not reviewed at all; it might as well not exist.
- xiii Scientific evidence invalidates health assumptions underlying the FCC and ICNIRP exposure limit determinations for radiofrequency radiation: implications for 5G. *International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF), Environmental Health* (2022) 21:92: <https://doi.org/10.1186/s12940-022-00900-9> : “The implementation of 5G technology without adequate health effects information raises many questions, such as: Will exposure to 5G radiation: (i) compromise the skin’s ability to provide protection from pathogenic microorganisms? (ii) will it exacerbate the development of skin diseases? (iii) will it increase the risk of sunlight-induced skin cancers? (iv) will it increase the risk of damage to the lens or cornea? (v) will it increase the risk of testicular damage? (vi) will it exert deeper tissue effects either indirectly following effects on superficial structures or more directly due to deeper penetration of the ELF components of modulated RF signals? (vii) will it adversely affect wildlife populations? Answers to these questions and others that are relevant to human and wildlife health should be provided before widespread exposures to 5G radiation occur, not afterwards. Based on lessons that should have been learned from studies on RFR at frequencies below 6 GHz, we should no longer rely on the untested assumption that current or future wireless technology, including 5G, is safe without adequate testing. To do otherwise is not in the best interest of either public or environmental health.”
- xiv <https://meassociation.org.uk/2024/05/how-many-people-have-me-cfs-in-the-uk/>
- xv <https://fibro.org.uk/what-is-fibromyalgia/> Fibromyalgia shares many symptoms with EHS and it is likely that some of those who have been diagnosed with fibromyalgia (also) have EHS.
- xvi <https://theconversation.com/ignored-blamed-and-sometimes-left-to-die-a-leading-expert-in-me-explains-the-origins-of-a-modern-medical-scandal-241149>
- xvii <https://www.theguardian.com/commentisfree/2024/oct/18/maeve-bothby-oneill-me-chronic-fatigue-syndrome>
- xviii <https://www.theguardian.com/commentisfree/2024/mar/12/chronic-fatigue-syndrome-me-treatments-social-services>